

THE AMERICAN FARMER

ESTABLISHED 1819

NINTH SERIES.

BALTIMORE, MD., AUGUST 1, 1882.

Vol. I.—No. 15.

Wheat Culture.

PREPARATION OF THE LAND—APPLICATION OF FERTILIZERS.

Messrs. Editors American Farmer:

After waiting a long time before complying with the request made by your Mr. William B. Sands, that I should write an article for your paper respecting my mode of wheat culture, I have this afternoon (just after being stopped from cutting wheat by a heavy thunder and rain storm), concluded to defer the matter no longer, but give you my plan in as brief an article as possible to cover the ground, and if you think it too long or of too little interest for publication, please consign it to the waste basket and I will take no offence.

Preparation of the land is the first in order. This should be done when fallow is being prepared, as early in the summer as possible. I prefer having my land all thoroughly plowed, the sod being uniformly inverted and at as great a depth as an Oliver Chilled Plow (which I prefer) or any other good plow can bury it, provided the subsoil is not brought to the surface. After plowing, which should be done as early in August as possible, I use a heavy roller and Acme harrow to fill up all interstices and assist in settling the earth and making it as compact and fine as possible. This thorough compactness and pulverization I regard the great essential in the preparation of land for wheat. I now apply my barn-yard manure, and before grass starts to grow (as I propose keeping my seed bed free from either grass or weeds) I have a spring-tooth harrow run over the ground, which mixes the manure with the surface earth and destroys the young grass and weeds and keeps the ground in condition to receive and retain the atmospheric influences. After this treatment I can generally dispense with further cultivation until just before seeding wheat, at which time I have the spring-tooth harrow and Thomas' smoothing harrow, and the roller used to put the seed bed in as fine and solid condition as possible. I prefer preceding my drill with the roller, and immediately after drilling roll again. This latter process I regard very important, although many good farmers think differently. My reason for adopting the plan of rolling after the drill is that the surface of the seed bed may be as nearly as possible of the same degree of compactness as that portion of the seed bed immediately under the freshly deposited grain. My experience with the process is, that I have no winter killing of wheat, my wheat invariably making such vigorous root growth in compact soil that it is not thrown out of the ground. On the contrary, if I was not to roll after seeding (unless a rain should fall to settle the ground very soon thereafter), the very fine porous earth loosened up by the time of the drill would be the only covering for the wheat, and would necessarily be much more congenial to the young delicate rootlets than the

harder and more compact soil immediately under the point of the tine where the grain is deposited. The result of this last let-alone process is, that the surface becomes one mass of roots, and the wheat may look equally as well in the fall as upon the land where the roller had been used, (that is provided the surface soil has fertility sufficient to keep the wheat in vigorous growth until overtaken by freezing weather, and it is at this point the trouble begins); but the unrolled wheat has no depth of root, it lays upon the surface feeding upon the congenial loose soil until overtaken by winter, and then remains quiescent until favorable weather for its growth. When this period arrives the wheat makes an effort to find more food; the freezing and thawing process has broken off the young feeders, and it is a struggle for fresh food until the weather becomes permanently settled. By this time the fly makes its appearance, and now begins again a new battle for life with impaired constitution, and all because of not applying the proper remedy immediately after seeding. While living in Baltimore county I tested this matter thoroughly. I had a neighbor who prepared his land (which was of the same character of soil as my own) in the most perfect manner, the only difference in the cultivation was, he would not roll after seeding and I did. His crop for several years in succession was 22 bushels per acre; mine 30. He attributed the difference to the kind of wheat and bought his seed of me. The difference in yield per acre continued the same. He would not roll after seeding because he considered the loose earth the time drew up between the rows of wheat was a grand thing to recover the wheat roots that the frost threw out of the ground. I was raised a merchant, he a farmer; consequently, he knew better than I. My wheat was not thrown out, his was; my wheat grew off promptly in the spring out of the reach of the fly, his wheat was affected by the fly. My experience is, that thorough preparation as above described and early seeding—say from the 20th of September to 10th of October in this locality and in Maryland from September 10th to 20th—with an application of dissolved South Carolina Rock and Kainit, will almost insure a crop of wheat. In seeding corn stubble, I prefer having the corn cut off and twenty-four rows shocked together. I then use the spring-tooth harrow to prepare the seed bed. The corn should be cultivated flat and kept as clean of grass and weeds as possible, for the benefit of the corn in the first place, and to save labor in preparing the land for wheat in the second.

After a thorough test of ammoniated and non-ammoniated manures of the very best and most reliable brands, on wheat, corn and oats, I find South Carolina Rock and Kainit to produce results, in every case equal, and in some instances superior to the ammoniated fertilizer. I have been making these tests carefully for three years and will give you the particulars of my experiments

in a future article, if you desire me to do so.

Very respectfully yours,

T. R. CRANE.

Mantua, Northumberland County, Va.

[We hope to hear further, as proposed, from our correspondent, who carries into his farming operations the system, energy and painstaking of the successful merchant.—Eds.]

Farm Buildings.

BY THE DEER CREEK FARMERS' CLUB.

The regular monthly meeting of the Deer Creek Farmers' Club was held at the residence of Mr. James Lee, on Saturday, July 8th.

According to custom a committee, consisting of Messrs. Moores, Wm. F. Hays and Archer was appointed to report upon the condition of the farm and premises. The entire club took part in the examination, and upon re-assembling John Moores said the committee could not add anything to what had previously been said in relation to the excellent condition of Mr. Lee's farm. He is recognized as one of the foremost farmers and his farm as one of the best in the county. His wheat and corn are not excelled anywhere. Although harvest generally is late, Mr. Lee's wheat is nearly all in the barn, showing much energy on his part. He has just completed an addition to his barn, making it the largest in the county. It has underneath stalls for 70 head of cattle and ten horses. All of the cattle stalls are provided with Judge Watters' patent cattle fasteners, which are in complete order and work well. They were erected by Mr. Wm. Munnikhuyzen. Mr. Lee has about 50 head of fine cattle on grass now ready for market. His thorough-bred Short Horns also look well. Mr. Lee has branched off slightly from the customary mode of farming into tobacco raising, and has 6 or 7 acres that look as well as any he had seen. From the looks of his permanent pasture field he might have fed 20 more head of cattle. He has 50 head on 75 acres. His garden is finely located, well worked and abounds in vegetables of all kinds.

R. Harris Archer thought it a good idea that Judge Watters' cattle fasteners were put on before the stalls were completed, as they can then be erected more cheaply and conveniently.

John Moores added, that with these fasteners every bullock in 70 stalls could be loosed in one minute, and Mr. Webster thought every farmer, if he only handled 25 cattle, would be justified in using the fastener.

James Lee said that all of the stone for the foundation, from 125 to 150 perches, had been hauled with two yoke of oxen and two men, since the 1st of last March, and the timbers had been hauled five miles.

The subject selected for discussion was FARM BUILDINGS, and we are debtors to our friends of the *American Farmer* for their concise but evidently correct report.

James Lee thought the subject of great importance to farmers. He said sufficient attention was not paid to farm buildings. The farmer's dwelling might be legitimately considered one of the farm buildings, but its construction would always depend upon the means or the fancy of the farmer. While it might be proper to go a little in debt for buildings for stock and grain, he would not advise a farmer to embarrass himself for the sake of having a fine dwelling. On a grain farm it pays well to have barracks. From 5 to 10 per cent. is lost on straw and fodder by stacking them out. The most important building to the stock handler is the barn. This should be put up in the best manner and with all the modern improvements. A low barn was formerly necessary for convenience of handling hay, &c., but with the present appliances, such as horse power, hay forks, &c., stabling may be put underneath for stock and the building made as high as you please.

Mr. Lee said he regarded Judge Watters' cattle fastener as one of the greatest conveniences about a barn, not only as a fire escape, but for every-day use. He had used them for two years, and now had them in 63 stalls.

To conclude, he said that provender properly housed would feed twice as much stock as when fed in the field, as was generally the case fifteen years ago.

John Moores believed with James Lee that it is absolutely necessary to successful farming to have good farm buildings and plenty of them. It would pay a man to go in debt for good, substantial barns and stables, but he would not advise a farmer to go in debt for a fine house. Instead of putting all the buildings together, as Mr. Lee has done, he would have built a barn to accommodate horses separate from the other, and not let the horses and cattle go into the barn yard together.

R. Harris Archer approved having everything under one roof. The fear of fire is the great bugbear, but if the buildings were so far apart that fire would not reach from one to another, they would be inconvenient for work. One man will do twice as much work in a day in the winter time, if everything is together. Mr. Archer referred to the trouble of getting grain stacked and the superior convenience of hauling it immediately to the barn. While he agreed with John Moores as to the importance of erecting buildings in a substantial way he thought the superstructure of a straw house might be light and answer all purposes.

S. M. Lee said he had lost a good deal of money for want of buildings.

Judge Watters said farm buildings are an essential part of good farming, but he did not regard them as the most essential part, for the reason that rich land will soon enable you to put up all the buildings you want. Buildings will not make land rich. Good land comes first. It is nonsense to spend a disproportionate amount of money to put up buildings until you get your farm to produce good crops. He thought farm



buildings should be put up in the most substantial but not in the most expensive manner. All farm buildings should be kept in repair. He was opposed to putting everything in one building, and would not put horses in the same stable with cattle. He would have a sufficient distance between the buildings to give a chance for one to burn without the other. He would have stabling for all his cattle with room overhead for provender, and barracks in the fields for hay. One thing few farmers have which they should have, namely, a place in which to put farming implements, out of the weather.

Wm. F. Hays regarded farm buildings as a necessity to save crops. Before he had a barn he tried to stack his wheat and lost a great deal of it. He would like to have the stable, barn, granary, &c., separate from each other. It is convenient but dangerous to have them all together. You cannot get insurance enough on the building to pay for its loss by fire. Mr. Hays said he had used Judge Watters' patent cattle fasteners and regarded them as almost a necessity. He can halter two steers with them more readily than he could fasten one with the old mode. There is also no trouble about steers getting loose in the stable. Another point is the advantage of turning out cattle with their halter chains on. With the old style the T frequently becomes fastened in the steer's hoof, and it is sometimes difficult and dangerous to remove it. With the patent fastener this cannot occur. He did not see why they would not answer as well for horse stables as for cattle, in case of fire.

Mr. Fulford said one thing had not been touched upon, namely, the location of the buildings with respect to the house. This must be controlled in a great measure by the lay of the land, but where possible the farm buildings should be out of sight of the house. This leaves the surroundings more agreeable than if the farm buildings are close to the front door. It is desirable to locate the buildings near each other, but not necessarily under the same roof. Most farmers have not consulted the matter of convenience as much as they should, in putting up farm buildings. They are intended to last a lifetime, and the little every-day time and labor-saving conveniences will amount to a great deal.

Mr. Ball said it was important for buildings to be comfortable and convenient for the animals and to do the work. He thought they should be erected substantially, or they might go down by tornadoes, such as they have in the West. While the buildings should be sufficient, on many farms there are more than are necessary. He regarded the dwelling house as the most important building on the farm. It should be comfortable and convenient.

Mr. Barnes said that if building he would have the horse stable separate from the barn. It would be healthier for the stock, and they might be better attended to where a great deal of stock is kept.

Mr. Castner said that his ideas about farm buildings were so different from those of other members that he felt ashamed to express them. If President of the Chesapeake and Ohio Canal he would have a \$10,000 barn. If Secretary of the Navy, a finer one. When his barn was burned he thought he could not winter his stock without one; but a neighbor had advised him to hold on a year or two, and he had found he could get along very well without a barn. To make the most out of a grain farm a costly barn is not necessary. He has 50,000 cubic feet under cover at a cost of less than \$200, and his wheat, fodder and hay are as well protected as in any barn in the county. He can mow everything except all his hay, and on a grain farm you do not have a great deal of hay. A barn with 50,000 cubic feet would cost \$3,000, and in 50 years for repairs, taxes and insurance it would cost \$50,000,

computing the original investment at compound interest; and then you would have no barn left.

A good granary is necessary to protect the wheat after it is threshed. That is about the only first-class building a grain farmer needs. It is a dangerous idea, and in a good many young men's heads, to overlook everything else and spend their whole force and energy in erecting outbuildings. It would be better to spend more capital in bringing up the land; after that is done build moderately.

Parker H. Lee remarked that his views had been fully expressed by others, but he would say that in convenience of handling stock he thought Judge Watters' cattle fasteners invaluable. If he could not replace them he would not know how to put a valuation on them. Any man who handles stock without them does so at great risk to his life. They are also convenient and a great saving of time. Cattle handle more gently, since you do not have to go before them to loosen them. He had used them for two years and found that in the section where he had them the cattle walked out more quietly than where fastened in the old way.

Mr. Lochary said farmers could not get along without a barn or outbuildings. Without a barn and stable you waste feed, manure, time and flesh on stock. Convenience of arrangement and durability are the most important things to be considered. The barn if located near the centre of the place adds greatly to convenience.

Thos. F. Hays said plain and substantial farm buildings with necessary conveniences, are profitable to the farmer. There is a great deal of waste of feed and manure without them, besides a waste of mind and body in man. He should endeavor to locate them as near the centre of the farm as he could, and at the same time have the barn readily accessible from the public highway. It is unwise to have them under one roof, for if separate you might save some in case of fire. He would not have the horse stable under the cattle barn.

Mr. Mooney thought farm buildings indispensable. He regarded a good, comfortable and convenient dwelling as important as any building on the farm. He would have the granary separate from the barn. At the same time, for convenience, it is advisable to have all the buildings under one roof. He did not object to have horses stabled near one end of the barn. A barn is not so necessary on a grain farm as on a stock farm.

Mr. Janney was in favor of good, substantial farm buildings. There should be a place for everything and everything in its place. His experience in stacking wheat had led him to decide in favor of barns. As to the character of the buildings one must judge for himself. What one would consider convenient another would consider inconvenient. If he were feeding cattle he would object to having horses in the same stable with them, as it must be unhealthy for the horses. The location of the barn is important. It should be near the centre of the place and on good elevation from which you can overlook the entire farm. As had been remarked the dwelling is the most important building. Where the ladies of the family have so much to do their convenience ought to be studied. It is not necessary for the dwelling to be fine or expensive, but many conveniences might be added and the surroundings made as pretty as possible, and all of which might be done without great expense.

Mr. Webster said Mr. Janney had struck the key-note of the subject when he said the dwelling is the most important building on the farm, whether it contains two rooms or twenty. He had no sympathy for the farmer who uses all his time and energy in barn building and neglects his house. Every

farmer should also have a good, large, substantial barn, on the grounds of profit, comfort, convenience and looks. No farm can be made good and productive without stock, and stock must be housed to be profitable. Barracks are useful but they lack the convenience of a barn. He would not advise any farmer to borrow money to build a barn. First make the farm rich and then build a barn with a view of adding to it when necessary. It is better to have all the buildings under one roof.

Some discussion then ensued as to the absolute importance of keeping stock to improve land. Mr. Castner said he improved his land by mowing grass and allowing it to lie on the field for the benefit of future crops. He thereby got vegetable matter in his soil. Mr. Webster thought the land would improve more by allowing cattle to eat the grass.

The President, William Munnikhuyzen, said he had been farming upon Mr. Castner's system, but misses a barn. Many things can be done in a barn on rainy days that would otherwise be neglected. He agreed entirely with Messrs. Janney and Webster in their remarks in behalf of the ladies. Everything should be done for their comfort and convenience.

Adjourned to meet at Thomas Lochary's, July 29th. Subject—"The Wheat Crop." Committee of Inspection—Judge Watters, Jas. Lee and Wm. F. Hays.

Hampshire-down Sheep—Barley, Wheat.

Messrs. Editors American Farmer:

Mr. O. W. Wilkinson, the representative of W. D. Horsley, Esq., of England, (who purchased a farm near Fishersville, Augusta County, Virginia, a few years ago, and is in the civil service in India,) lately went to England, and selected in person, from the best flocks in Hampshire county, 20 yearling bucks, averaging 200 lbs. He arrived with them at Fishersville, a few weeks ago, in fine condition. In evidence of their appreciation, five of the same age, quality, &c., were purchased by a gentleman to go to Brazil, the insurance on which, per head to Rio, was \$35. Mr. Wilkinson deserves commendation for his public spirit, and ought to be liberally compensated by his neighbors and others for the risk, trouble, expense, &c. Will he be?

BARLEY.—Why is it that this crop, more certain, and equally as remunerative as wheat, is so little cultivated in your State and ours? A farmer in Augusta county, near Mount Meridian, this summer a year ago, cultivated 40 acres, and made 40 bushels per acre, and marketed it at Baltimore at \$1.25 per bushel. The same field from some unknown cause would not bring over 20 bushels of wheat per acre. This summer a farmer in Rockingham on the line of the Shenandoah Valley railroad has a field that good judges estimate as yielding 60 bushels per acre.

WHEAT.—The idea is a prevalent one that continuous cropping in wheat, is exhaustive of the soil. Permit me to give you this incident, combative of that idea. In July, '64, on the Saturday the battle of Monocacy was fought, with two friends, who, like myself, had accompanied General Early, not connected with the army, in sight of Washington, rode out four miles northwest of Frederick City, to find a good dinner. Presently a large brick house loomed up, at some distance from the road, that presented all the indications apart from being out of the line of march of either army, that our guests might be successful, so our horses heads were turned in that direction. Harvest had been secured only a short time before, and as we rode through a field near the house, the stacks stood so thick, we indulged in speculation as to the yield per acre. We concurred in opinion, but I will

not state what it was, until I have given you what occurred. We received a courteous and polite reception. Awaiting dinner, I said, "Mr. Rountzahn, we have been speculating as to the yield of wheat per acre, in the field we rode through, near the house; what is your estimate?" "Well, sir, said he, I think the yield will be equal to what it was last year, which was *forty bushels*, and it will doubtless surprise you to learn, that that is the *eighteenth* crop, consecutively, off of that land." This was our estimate; we were in the world-renowned "Middletown Valley," and the *barn yard*, with the astonishing stubble, was the fertilizer relied upon. Will you not concede that the argument *against* exhaustion, is a strong one?

Augusta Co., Va.

J. M. McCUE.

Foreign Notes.

From our Paris Correspondent.

EARTH FOR BEDDING STOCK.—M. Rodinoff draws attention to the use of calcined earth as a litter. He covers some branches with clay, sets them on fire and the earth is baked; it must then be kept under a shed to prevent absorption of humidity. In the calcined form, absorbent power of clay is naturally augmented; in that state it is better fitted also to fix gases. It is more suitable for a sheep than a cattle shed, and when employed in the latter case, a slight sprinkling of straw will be an improvement. The best litter is that which will absorb most urine, &c. In this sense, following Boussingault, bean, buck-wheat and pulse straws are first, as they absorb three times their weight of liquid; wheat straw, but twice its weight, and dried earth, but one-half. The latter then is only four times inferior to wheaten straw.

THE PHYLLOXERA.—There is nothing special to record respecting this enemy, which is being bravely fought everywhere, and the means, sulphuret of carbon, &c., autumnal irrigations, and last not least, strong manurings.

LAYING OF GRAIN.—M. Joulie gives some very sensible explanations respecting the laying of grain. It is popularly, but erroneously believed, that the laying of wheat, &c., is due, to a deficiency of silica in the stem; analysis, however, has shown, that this is not so, there being no perceptible difference between the laid and the stalwart stems. Grain falls, because the stem or the foot is weak, and this weakness is the consequence of moist, warm weather, and the absence of sun-light; the latter prevents the elaboration of carbonic acid, to enable the plant to form cellulose or sinew, and which imparts solidity. The stem becomes not ligneous, but herbaceous and etiolated; it breaks at the base, from want of regular nutrition; it has "rickets;" it is unable to support the upper part and ears, consequently the crop is laid and destroyed. This is not the same with grain laid from a wind and heavy rain.

Mr. Whitridge's Polled Angus Cattle.

We had an opportunity recently of inspecting these newly imported cattle and found them really worthy of admiration. They are finer in bone, coat, and general appearance than the usually received impression. Short-legged, square-built, even massive, with a look of ruggedness, they are good handlers, with soft hair and mellow skin. The bull, Sir Eustace, now 18 months old, is compact of frame, low set, straight along the back, with magnificent broad loins and a deep chest, and of such a shape as will evidently show great weight in moderate compass.

Clarissa and Merrythought, the two two-year old heifers, are excellent animals, the former somewhat the more even and shapely, perhaps; but both have symmetrical forms and handsome heads, notwithstanding the horns are lacking. Merrythought is develop-

ing an udder which promises at least to be as good as is generally seen in the beef-making breeds. The color is entirely black, save that one of the heifers carries some white on her bag.

The bull will be used upon some grades on the farm and it will be interesting to note the effect upon the produce in reducing or eliminating the horns. Mr. Whitridge has ordered four more heifers, but the difficulty in securing animals of just such quality as he wants is so great that his agent in Scotland has, so far, only succeeded in bying one which reaches the standard set up.

Chatsworth Herd of Jerseys.

We had the pleasure recently of visiting Chatsworth, the residence of Hon. Andrew Banks, near Reisterstown, Baltimore county, to inspect his herd of choice Jersey cattle, where we had the pleasure of meeting the following Jersey breeders: Hon. Edwin H. Webster, Messrs. G. S. Watts, Jno. G. Clarke, W. H. Jones, W. H. West, W. T. Poole, T. Alex. Seth and Chas. G. Kerr.

The excitement and determination to win at our County Fair seems to increase in our Jersey breeders in the ratio of the nearness of the exhibition, and but for the rule of the Society, which requires exhibitors to own their exhibits for three months next preceding the show, we would still see some live purchasing. As it is, all have to be satisfied with what they already possess. The season for buying has already passed, and the season for visiting among each other has begun.

It is gratifying to see that while the excitement is strong among our breeders, the rivalry is altogether pleasant and friendly, and it is to be hoped that whatever may be the result of the awards that it may all end without unkind feeling among our breeders.

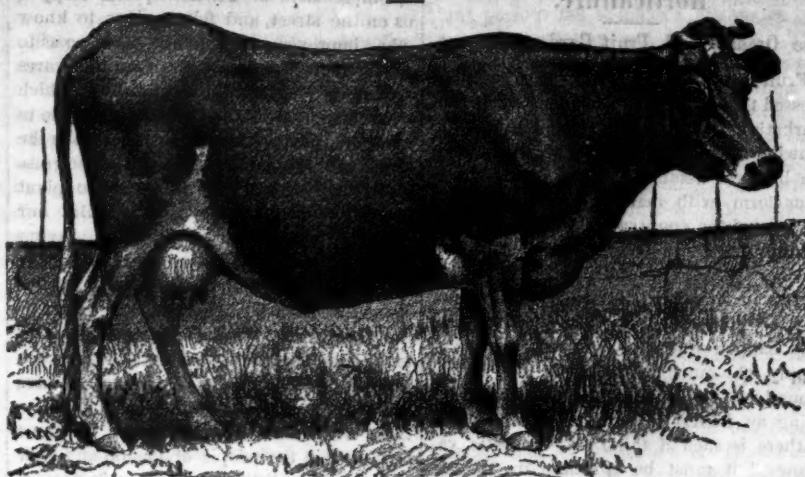
Remember, gentlemen, that you can't all win, and be assured that the Society will have the awards made by a committee of gentlemen thoroughly competent and of the strictest integrity.

At Chatsworth we saw Lord Rex 4113, a noble bull, and one that it is pretty well understood is hard to beat in the show ring, or as a breeder. His pedigree is faultless, and his calves, many of which we saw, show his power as a breeder. He is a large dark fawn, beautifully dappled, with exquisite head and horns, great back and carcass, with a perfect curvilinear escutcheon of very large dimensions. His owner refused \$2,000 for him in December last from a prominent breeder, and we have no doubt that if he had shown any disposition to sell he could have got a much larger price, but he is not for sale at any figure. Among the number of fine cows we have only space to mention Damsel Adele, a fine large cow with immense capacity and fine yellow skin. She is due to calve in a few weeks, and will make it hot in her class. She was the winner of first honors at the New Jersey Fair last season.

We were particularly struck with the fine barn at Chatsworth, and do not know its equal in elegance or the completeness of its appointments. It is 70 by 100 feet, very high, giving immense accommodations, and architecturally a very handsome building. It is probably the finest barn in the State.

The Maryland Improved Live Stock Breeders' Association will hold its quarterly meeting at the rooms of the Merchants and Manufacturers' Association, Baltimore and Howard streets, on Wednesday, August 9th, at 2 P. M. Besides hearing the papers of Mr. Harrison, on Ensilage, and Dr. Patterson, on Dutch Cattle and Dutch Dairy farming, the Association will discuss the best means of protecting the interests of its members by rendering aid to the Executive of the State in stamping out contagious pleuro-pneumonia.

Bell, 1506.



BELL - 1506 -
(Empty Udder)

In our issue of May 15th, we gave an illustration of Nellie 1507, one of the best representatives of the Victoria family of Jerseys, together with an account of the family from the pen of Mr. W. S. Shields, Tennessee. This family being strictly a Maryland one—i. e., descendants of animals imported directly to Maryland, and owned and bred here, and being in our mind the equal in excellence of any of the noted families of Jerseys, we present in this issue an illustration of Bell 1506, the dam of Nellie, and the daughter of Imported Victoria, the real foundation of the family. Victoria was imported to Baltimore in 1861, by Messrs. H. & R. Tucker, and by them sold to Clarke and Jones, for whom she bore two daughters, Bell 1506, and another which has never been registered, but who was a grand cow and made for Mr. Thos. J. Haines, of Carroll County, 14½ lbs. of butter in 6½ days. Bell was never tested but once, 4 months after calving, and on grass alone she made 12 lbs. 14 ozs. of butter, and was doubtless a 14 lb. cow. Her female offspring were Nellie 1507, Ruth Jones 1509, Ettie Bell 2094, Lida Labyrinth 3987, Datura 5287, Edith Darby 6246, and Bell of Brighton 11686. The five first named have all been prize takers, and it is well known that the herd of Messrs. Clarke and Jones, has taken more prizes at our Maryland shows than any other Maryland herd. They have never exhibited out of the State. Nellie, Ruth Jones, Lida Labyrinth, Datura and Edith Darby, are still owned by Messrs. Clarke and Jones. Ettie Bell, of whom Mr. Clarke says, "she was the most promising of the family" died from an accident in her 3d year. Bell of Brighton is owned in Frederick County, and is the last daughter of the old cow. While weekly tests have not been fashionable among our Maryland breeders, the owners of these five cows know enough of their powers to be satisfied of their being all 12 pounders.

Edith Darby, recently made 10 lbs. of butter in one week, when over nine months in milk. She was fresh in May and will probably be one of the cows entered for a public test at the coming Baltimore County Fair.

Among the grand-daughters of Bell are Jessie Lee of Labyrinth 5290, that has made over 16 lbs. per week. Beulah of Baltimore 3270, 14 lbs. 6½ ozs., Vashti of Baltimore, 3260, 14 lbs. for Mr. M. B. Rowe, of Fredericksburg, Virginia, besides others believed to be equally as good but never tested.

The family is one of remarkable uniformity in appearance and in shape of udders, &c., and while they are in the minds of some, not up to the fashionable point, these seeming defects are their strongest recommendation to others—we mean their size. They are the largest Jerseys we know, with immense barrels and extremely broad loins, with fine heads, and altogether without the slightest suspicion of coarseness, so that we

can see no objection to their size. Bell's color as will be seen was much broken, but her heifers have been solid or nearly so, except Bell of Brighton, who is marked much like her dam. Altogether this breed is one of which the owners feel just pride, and if a prize were offered for a herd bred by the exhibitor, could not be beaten by any we know at present.

Apropos of the pleasures of owning a fine herd of one's own breeding, we quote from an exchange:

THE BREEDER'S REWARD.

* * * * * But we must place the breeder's position above that of the dealer or the purchaser of improved stock. There is a genuine pleasure in the possession of a fine animal; but that pleasure is greatly enhanced if one can say, "It was my skill and judgment which caused this excellence. I selected the parents. I fed and cared for and trained this animal." There are few things connected with agriculture which can give greater pleasure than comes from the consciousness that the animals admired by ourselves and others have been greatly improved by our skill. To be able to say, "I bred these animals and their ancestors for generations back, and each generation was better than its predecessor," gives one the right to feel pleasure and self-gratification.

Butter Tests.

Messrs. Editors American Farmer:

Your correspondent, J. E. S., in your last issue, says: "Referring to the article in THE FARMER on Value 2d's record of one pound of butter from nine quarts of milk, etc.," in which he has fallen into a grave error. The article he referred to on page 187 of your issue of July 1st, is as follows: "Before the cold weather set in, nine pounds of her milk made one pound of butter, etc." Counting a quart to weigh two pounds, which is very nearly the mark with milk rich in cream, this would be four and one-half quarts for one pound of butter, while his Baby Buttercup's twelve and a-half quarts for one pound fourteen ounces of butter is at the rate of about six and two-thirds quarts to the pound of butter. Baby Buttercup, from her breeding, should be, and doubtless is, a fine young cow, and in calling your attention to your correspondent's accidental misquotation I mean no disparagement of her. I quite agree with him as to the value of the test of Pansy 1019, but think no other test so nearly approaches her's, in the manner of conducting the same, as Value's. Value actually made 446 pounds 12 ounces of butter in the year while the milk used was carefully weighed and amounted to 2,705 pounds 12 ounces—from which the weight of the milk from which the butter was churned being known—it was estimated she made 225

pounds 1 ounce, or 671 pounds 8 ounces in all, and with second calf.

Like Mr. Sutliff, Mr. Taggart had but the one cow. The estimate of the butter and the milk used by Mr. Sutliff and his wife—228 pounds as estimated by J. E. S. to make up the 800 pounds, while probably not excessive—is more than I have ever known to be claimed for her. But I think your correspondent can have no higher opinion than I of the value of old Pansy 1019 and of her son Champion of America and their descendants, and the time is coming when they will occupy a place in popular estimation second to none; and I wish the greatest success to the family of "Orleans."

T. ALEX. SETH.

[J. E. S. wrote us after the publication of his communication to correct this error, which came from his following the incorrect text in a Hagerstown paper of an article from THE FARMER, quarts having been substituted for pounds.—Eds.]

Jersey Valma Hoffman, 4500.

By an error in our last the ownership of this cow was credited to Dr. S. T. Earle, Jr. The correct name is "Valma (not Valera) Hoffman. Since the report made to us by Mr. Seth, she has done even better, as the following from Mr. Earle will witness:

Under date of July 24th he writes: "I found about three weeks ago my cow was on the increase again, notwithstanding the numerous flies we have, though I suppose she has in a measure become accustomed to them. On July 15th, the butter from seven days' milking was carried up to Centerville, and carefully weighed there by Joseph E. Elliott & Bro., one of the largest stores in the place, and they returned me the receipt on paper, 19½ lbs. On last Saturday, July 22d, the butter of seven days' milking was again carried to the same place and they returned to me on paper 21 lbs. Where she would stop at but for the flies, I cannot tell. She is one of the heartiest eaters I ever saw, and is in perfect health."

It is hoped and expected that Valma Hoffman will be entered in the butter test at the Baltimore County Fair in September, a contest which will be watched with the greatest interest by all interested in the performance of the Jerseys and the Guernseys.

Another Importation of Percherons.

Although Messrs. W. T. Walters & Co., who have done so much to introduce representatives of the best strains of Percherons into this country, had determined, owing to the pressing demands of other business upon their attention, to discontinue their importations, an opportunity afforded them lately of securing one of the most noted stallions in Perche caused them to change their decision; and, as special arrangements had to be made and a special attendant secured for the shipment of the horse, they had three mares selected to accompany him. These have reached here, almost without a scratch, and are safely quartered at Mr. Walters' farm.

The horse, called Black Prince, is of a style somewhat different from any of the former introductions. He is of the deepest black in color, his coat shining like satin, and with an energy and quickness of motion entirely unusual in such heavy animals. He is now seven years old and 16½ hands high.

Though large and so strongly built as to look the very embodiment of equine power, with a long and superbly arched neck, grand shoulders and great depth of chest, yet in his every movement he shows a style rather to be expected from one of our quick moving trotters than from a horse of such size and weight. It is probable, indeed, that with so many combined excellencies of the individual, and of his ancestors, and with such pure and carefully maintained blood, such

a horse could not have been secured but that the death of one of the most successful farmers in Perche, made it possible for the Messrs. Walters to purchase him through their agent there, who writes them about Black Prince as follows:

"He belongs to the most ancient Percheron stock of Orne. For more than 200 years the Sortais family have raised colts of this same strain of Percherons, all of which have been eagerly sought after as breeders in our own country. His sire, when 28 years old, fell dead, harnessed to a cart, as he returned from the field, struck with apoplexy. His dam, Mignonne, belonging to M. Petit de Corbert, was the daughter of the celebrated stallion Mondoubleau.

Black Prince trots with as high action as the most prized Russian horse. I had him hitched to my tilbury and my friends were amazed that such a mass could move with such speed and action. Born in Orne, he was raised near me at Sies, where he stood. Beyond a doubt had his master lived he would not be for sale. He is a remarkable type of that great race of horses which is now becoming scarce, owing to the flood of Belgian and Flemish blood, introduced by breeders, looking only for size."

We were present when Black Prince was first put in harness after his arrival, and as is related above, so here, too, some excellent judges and handlers of horses who were present, remarked with surprise and admiration his stylish action coupled with such intelligence, willingness and docility that a child might have driven him.

The mares are all large animals, two of them dark, the other a lighter grey. They come of families distinguished for their careful and pure breeding. One of them is full sister to a celebrated horse purchased by the French government for \$1400 for the national stud at Pin. Another, only four years old, and not yet fully developed, is already 16½ hands high, and promises to be an animal of magnificent development.

This shipment is altogether an exceptional one, and the influence its blood will have upon the draft horses of the country is likely to be most favorably felt.

Care of a Breeding Mare.

The best feed for a breeding mare is wheat bran and oats. If she is old the oats should be ground and the feed mixed half and half. If in good vigorous condition and not worked, two quarts a day is ample, but if required to labor the feed should be increased to eight or twelve quarts per day, according to circumstances. Breeding mares will generally do well when fed on hay alone, but the hay should always be free from mould. Clover hay is the best, and clover and timothy next best; a change to straw, if free from rust and smut, is not injurious, and when not working, is beneficial fed once a day, as it tends to maintain a good appetite. A mare in foal should be allowed exercise daily in the barnyard to give opportunity to roll, and it would be better to confine her loose in a boxstall rather than tie her up. Gentle driving on the road, or even work, will not injure her. Many persons work their breeding mares in a team up to the time of foaling, and have them do well. This is a much better plan than to keep them tied up in a stall. I kept a breeding mare eleven years, wintering her on hay left by the sheep, and she had a colt each year, every one being perfect in health and form. This mare did no work, and did not get any grain. The mare should never when in foal be turned in a yard or field with other horses. If there is a scanty supply of milk when the colt is born, the mother should be fed wheat middlings at the rate of eight or twelve quarts a day, beginning with four, and increasing the feed daily. Excessive feeding might lead to derangement of the bowels, which would be injurious to the colt. A very little salt should be given at a time, and do not expose to either wet or cold. It is always best to let a mare have a run to grass, if it is large enough for a bite, before foaling; it will help to make milk and to put the system in a healthy condition to meet the wants of nature. At night she should be brought into a dry yard or suitable enclosure.—*Cor. N. Y. Tribune.*

Horticulture.

The Orchard and Fruit Garden—August.

Fruit growers and orchardists will be pressed this month with the harvesting and marketing of their crops; and with the growing scarcity of good labor, this part of the business assumes a puzzling and vexatious form with many. From nearly all sections of the country we hear complaints regarding the unreliability and uncertainty of labor; and this is not due alone to deficiency in numbers of the laboring class, because in nearly every little village you may happen into, you will notice an over supply who much prefer to loaf and lounge around on goods boxes, on scanty fare, to doing an honest day's work at fair wages. If there is such a thing as "domestic vagrancy," it must be epidemic in nature, because a vast area of our country is cursed with it at one and the same time,—a kind of local "Trampism"—morally pernicious, but non-migrating. But to write on this subject here is not in harmony with our text, and in returning to orchard interests, we would suggest to shippers, the careful selection of the best and finest fruit only, to be placed upon the market in its natural state, reserving the smaller, and that which is less inviting in appearance, for the drier. In nearly every community where much fruit is grown, there are driers of modern improvement and manufacture erected, and fruit is bought in by the owners of the driers; though where parties have large orchards and good crops of fruit, if the labor is available, it will be more remunerative to dry the fruit at home on one or other of the patent driers offered for sale by manufacturers, the cost of which can easily be saved in a single season.

In the FRUIT GARDEN, the strawberry and raspberry beds will require looking after occasionally; the farmer should have the soil stirred around them to prevent the weeds and grass from choking off the growth of the plants, and to secure to the plants all the strength and moisture of the soil which would be largely absorbed by the weeds if left to attain any size. The old wood of the raspberry should be removed, and if the variety is of a kind which propagates by "suckers"—there should not be too many of such left to grow—unless it is of a very desirable variety, that every plant possible to make way be wanted to enlarge the bed another year. Where they are left to take their own course some kinds throw up such a great number of young plants, as to prevent many of them from attaining good size for transplanting. Cut out with the hoe when too thick. Blackberry plants should also have the old canes or fruiting wood of the present year removed as soon as done fruiting. Grape vines will require tying to stakes and trellises as they grow, to prevent breaking off of canes by wind storms. We hear much complaint in different sections of the grapes rotting terribly this season; will some of our readers in Virginia, who grow grapes, please report for our next number, the condition of the crop with them? In some localities in our own State we learn that the grape was never known to rot so badly as it has done, and is still doing the present season.

Pleasure Grounds—August, 1882.

By W. D. BRACKENRIDGE, Florist and Nurseryman, Govanstown, Baltimore Co., Md.

Should an individual who shuffled off this mortal coil, say 30 years ago, rise from his resting place, and witness the change that has come over the public in their love and admiration of floriculture, he would be led to suppose that Harlequin led by Flora had been strewing their mantles liberally over public and private grass plats.

Somewhere about 20 years ago, one of our

Commissioners of Public Squares stopped us on the street, and felt anxious to know what improvements could be made, so as to set off more effectually the four inclosures around the Washington Monument, to which we replied, that the first thing to be done to effect his purpose, would be, to remove the high iron railing and wall, remodel the grass plats, then design beds in which to plant flowers and flowering shrubs. But our commissioner hooted at this idea, saying that such things would get injured by one tempting cause and another. But we insisted that such a trial ought to be made, as the people would soon become accustomed to, or educated to respect and admire such things. Since that time, the people have decided this matter for themselves, much to their credit and good taste; yet we must own up that the people of Boston and New York went a little ahead of us, in the decorating of their public squares and reserves with floral designs.

Baltimore is by no means overburdened with public reservations, or what we will here call breathing spots for the public, in the centre of the city—and in these remarks of course, we do not include Druid Hill, Patterson and the Riverside Parks—these pretty nearly answering all the purposes for which they were designed; we refer more particularly to large, open squares and spaces in our more densely populated sections, and perhaps the most imposing and attractive we would note Eutaw Place and Broadway, yet in neither of these has the planting of trees to afford shade been attended to as it ought. In giving the precedence to these two reserves, we would by no means lightly esteem such squares as Madison, Harlem and several other decorated resorts, where pedestrians can rest in the shade during hot summer days.

Our main objections to the majority of such places of retreat is, that they lack the proper kind of trees that afford shade, and in this respect we might take a hint from the example set us, by the Park Commissioners of Washington D. C.

We think the time has arrived, when dwellers north of Jones' Falls, on the line of Charles street, should be accommodated with a park or play ground. The tract of land offered by Samuel J. Wyman, Esq., is admirably adapted for such a purpose, being easy of approach, with abundance of water and fine forest trees, of which advantage could be taken in laying out of shady walks and drives; and why our city fathers do not secure, enclose and lay out this so very eligible piece of property as a place of recreation for the public, we cannot well comprehend, since it has been considered wise to grade, terrace and lay out Federal Hill as a public resort, in order that our people may enjoy an extended and beautiful view of our city and its harbor, which is well, so far as it goes. We expect that the foregoing remarks about planting more shade trees on our public reserves, will elicit comment, and for this very purpose we wrote it, and every sensible person we think, will agree with us, that as "light is pleasant to the eye," and shade is also agreeable to a person who has been walking about under the rays of a meridian sun, on a hot pavement, the heat reflecting on him laterally from brick or stone walls, and Baltimoreans walking up Charles street, on nearing Washington's Monument, will, we think, fully appreciate the correctness of our statement, viz., that more shade trees are there and elsewhere necessary.

Retain as near as possible the form of figures in your beds composed of colored foliage plants, by frequently pinching back all branches that are straggling out of line. Such plants as are desirable for their flowers as Heliotropes, Scarlet Sage and Petunias, will require little or no pinching back. Observe to remove all weeds, and see that the

lawn and grass edgings are kept neat, as no bed of flowers shows to advantage where weeds and long grass surround them, and should dry weather appear to affect the plants, give them a good soaking of water, at least twice every week. Take out of the ground Hyacinth, Tulip and Mexican Tiger flower roots, clean them of all earth and then lay them out to dry in some shady place.

GREENHOUSE.

In this department, the burden of the work to be performed, will consist principally in keeping the insect tribes under subjection, by the frequent use of the syringe; this will also assist in keeping up a humid atmosphere which is congenial to the well-being of such plants as Gloxinias, Begonias, Fuchsias and the majority of the Fern tribe, but the exceptions among them consist of the powdered leaved Gymnogrammas, which soon become sickly if syringed overhead with water.

A few Calla Lily tubers may now be potted in a good, rich soil, and started for early bloom.

My friend, Mr. William Fowler, of Clifton Park, informs me, that he finds that most kinds of Palms thrive better out of doors in a partially shaded situation, than they do under glass, being more stocky, and not so liable to be attacked by insects, and in this we agree with him.

We would advise the shifting into larger pots, any young plants that are growing freely and likely to become pot-bound.

Chrysanthemums in pots will want to be pinched back, so that they may form stocky, bushy-headed plants.

Kitchen Garden—August.

To the vegetable gardener July is the most trying month of the year. Whilst thousands are looking around for shady places he is hard at work in the hot sun clearing off first crops and getting the ground ready for others. The market gardener, however, has this little advantage over some of us, that he can market his crops and clear and prepare the land with despatch, whilst we are compelled to wait until the produce can be used up, thus risking the loss of a good planting season and making less use of the land than we otherwise might. The very abundance of first crops in this showery summer has impeded the necessary work very much. Whilst my force has been gathering 2,300 quarts of strawberries and 270 bushels of peas, the weeds have made alarming progress; same everywhere I suppose, though I trust not quite so bad as here.

The strain of exertion ought now to be somewhat relaxed, and August should be comparatively a pleasant month in the garden. There is very little sowing or planting to be done, nor are weeds so rampant in growth as in months past. Cabbages may still be planted. If the plants are large they should be well pruned, and when planting is finished it is well to go over the field and press the earth against the roots with the side of the foot. It does not take much time and it makes "assurance doubly sure." Of course, if it is then raining, such work would be superfluous. Turnips usually succeed well after potatoes without further manuring. Bush beans and summer squash may be sown early in the month, and spinach, kale and onions any time. Lettuce, too, should be sown at intervals so as to have some always on hand. It is not too late to plant out celery, although last month would have been preferable.

Prune and tie up raspberries and blackberries. Cut away the old wood, thin out the young canes and cut these well back. Tar wine is the most durable tying material. Old strawberry beds are so difficult to keep clear of weeds that the wisest plan would probably be to make a new bed of proper size each spring, and if that is to be a success, which would be known by midsummer,

destroy the old one. If I have said anything against the merits of the *Sharpless* strawberries in former years I must take it all back. They were truly splendid, showing that all the vines wanted was moisture at the root, which they had this time in abundance.

Tomatoes are late. I have been experimenting with them in various ways, but up to this date (July 13), it is impossible to predict from what set of vines I am to get first fruits. A correspondent is troubled with cut worms. This pest is unknown here, and this season we have been singularly exempt from plant enemies of every kind.

To-day we have spread manure for cabbage, and a neighboring gentleman very justly complains of the smell caused by it. To-morrow it will all be plowed under and the trouble will cease. I mention this with a purpose to explain: Our manure heaps all the year round are a mixture of horse, cow and pig manure along with the sewage of the establishment. In a course of five years this is the second time that it has given any offence, and that on account of being used in a state of fermentation, which is contrary to our usual method of applying it. I consider the mixing of sewage with barn-yard manure an admirable method of getting rid of a nuisance and at the same time of ensuring a perfect manure. In very hot weather the heap should be left flattened out so as to delay fermentation, and the piling up and turning be left for cooler weather. When properly manufactured it has no smell, and very few would be able to guess from appearance what it really is.

It surprises me that so little mention is made in *THE AMERICAN FARMER* of the subject of *ensilage*. I am aware that it was perhaps the first to introduce the subject in this country, but why should a matter of so much importance be allowed to die away so soon? *Ensilage* may prove to be of no advantage in certain sections, but time and experience alone can tell.*

Concerning flowers, some one makes a good suggestion, viz.: that some be planted in a spot where children and others can help themselves so as to leave the regular flower-beds intact. I find another good plan to be to plant a reserve bed in an inaccessible place where none but the gardener would care to go. Thus I could go now and cut a bushel of *sweet peas*, whilst I could not be sure of a handful if they had been planted in the garden. In such a place as I suggest sow, in heavily manured land, in rows three feet apart, without brush or other support. It would not be amiss to have a bed of roses and some other leading flowers in just such a place; another year I hope to extend the hidden garden.

JOHN WATSON.

Baltimore County, Md.

*NOTE.—The subject of *ensilage* has become so familiar to our readers that we deem it hardly necessary to refer to it so frequently as when the subject was first introduced. There are new aspects however of the subject which receive attention from time to time. Preserving green fodder by this system appears to be a fact accomplished in this vicinity, and with many of our Baltimore county farmers is as regularly prepared for as any other routine farm-work.—EDS.

FAY'S NEW PROLIFIC CURRANT.—This is a new variety of a rich, red color, claimed to be equal in size to the Cherry, better in flavor, much less acid and far more prolific. Good judges say it is a decided step forward. Mr. A. Brackenridge, of Govanstown, is sending it out in this section.

We have used the fire clay chimneys advertised by Messrs. Chas. H. Torsch & Co., corner of Pratt and Charles streets. They are effective and cheap, and promise to supersede in many situations brick chimneys, being more quickly erected, not requiring a skilled mechanic to place them, and of less cost.

Wine-growing and the proposed Local Option Laws.

The wine producers of Anne Arundel view with apprehension the probable effect upon their branch of farming of the act to be submitted to the voters of that county, which if it becomes a law will prohibit the sale within its borders not only of liquors but of wines as well. General Luther Giddings, in a communication to the *Advertiser*, gives utterance to the following views:

"Wine growing is one of the most ancient branches of agriculture, and its use as a beverage has been sanctioned by the best men of all ages. Even the miraculous power of our Saviour was exercised in its production at the marriage feast. From the earliest times it has been ranked among the necessities for human subsistence, and throughout Scripture we find frequent references to 'corn and wine' and 'bread and wine,' &c. With me the culture of the Vine has always been a favorite occupation, and I had even supposed that the producers of pure American wines deserved to be encouraged and supported by the enlightened public sentiment of a country which aims to be self-sustaining in all things.

But this proposed law threatens me with fine and imprisonment, and will, if adopted, virtually confiscate the most valuable portion of my property. If the wine-growing interest was as extensive and important in Maryland as in some other States, it is scarcely to be supposed that our Legislature would have passed such an Act. But the question is the same whether few or many are injured by its unjust decrees. The prohibitory law which was recently voted upon in North Carolina, did not include wine, as many vineyards have been planted in that State, and its Legislators wisely desired to foster so important an industry. Nevertheless, the law was decisively rejected by the people.

The supporters of local option may say that I can send my wines out of the county for sale. Probably I might be conceded that privilege; but their law would deprive me of the *home market*, which is always prized by producers. It is not so clear, however, that I could sell my wines anywhere or even keep them in my cellars. Section 5 of the Act would seem to prohibit me from having them in my possession, 'with intent to sell or give away the same.' Could I, Messrs. Editors, without violating that section and subjecting myself to its penalties, enjoy the pleasure of offering you a bottle of wine if you should walk out to my vineyards some fine morning after April 1883? Should a wine merchant from New York come here to examine and purchase from my stock could I sell to him at this, my 'place of business,' without violating the law? I do not undertake to define its edicts correctly, but my opinion is that, if adopted, it will inure chiefly to the advantage of the lawyers, doctors and druggists. Its an ill wind that blows nobody good.

Again, it may be urged by the local optionists that I could sell my fruit before converting it into wine, and thus avoid any injury from the operation of the law. But one of the advantages possessed by the growers of grapes is that they are not compelled to sell them, as other perishable fruits, at unremunerative prices. When the market price is not satisfactory, they can put their presses to work,—summon Nature to their aid—and by the process of fermentation their grapes are converted into durable and wholesome wine. This wonderful natural operation is spontaneous; and we can no more prevent it, than we can prevent the rain from falling or the sun from shining. I have sometimes been asked by the advocates of the temperance cause whether wine could not be made without fermentation and devoid of the alcohol which it produces. It

can be done only by a perversion of nature's laws, and such a liquid would not be wine. Many persons fail to make a distinction between fermentation and distillation. The former is a purely natural process, while the latter is an invention of man, and thought by some to have been discovered by the old alchemists in their search for the *elixir vita*. By distillation, alcohol is now obtained from a great variety of substances, but while holding a very important place in the *materia medica*, it should not be classed with wine as a natural production and beverage. It is true that a certain amount of alcohol is developed in wine as the result of fermentation, but nature seldom goes further than to produce enough to make it healthy and durable. The expressed juices of other fruits do not, by fermentation, yield enough for their preservation. Spirit, made from other substances, must be added to make them keep; and hence complete and perfect wine can only be obtained from the *vine*. Though its products are sometimes abused, it is certainly one of the most valuable gifts of the Creator to man.

While on this subject, I should like to say a word to our land owners as to the advantages now offered them in its cultivation. Thirty years ago, in a communication to *THE AMERICAN FARMER*, I ventured the opinion that no better soil could be found in the United States for the successful culture of the Vine, than the ferruginous sands of our tide water region. A somewhat extended experience here and examination of vineyards in other States, has served to confirm my belief. Now that our farmers have been induced by the change in our labor system, the great extension of our railways and the rapid growth of adjacent cities to diversify their crops, why not make Anne Arundel a wine-growing county? If any one doubts its possibility let him come and examine my vines. And if he is not prepared to plant grapes now, let him not throw away the privilege of doing so hereafter by voting for a law which is designed to make the business odious and illegal.

The present time is auspicious for engaging in it. Notwithstanding the large rewards offered by the French government for a remedy or preventive of the *Phylloxera*, the ravages of the insect pest continues; and it has also invaded the vineyards of Germany and Spain. In some of the departments of France, the grape has been practically exterminated, and all the vines of Europe seem doomed to destruction. Those of California are also menaced; and a State commission has been appointed, whose duty it is to preserve from ruin if possible, the great wine growing interest of the Pacific coast. But as the European vines have been planted there almost exclusively, their efforts will probably prove unavailing. As the American species of vine (which are entirely distinct from the European) resist the attacks of the *Phylloxera*, the only mode in which the supremacy of France, as a wine producing country, can be re-established, is by planting our vines. Already millions of their dead vines have been replaced by American stocks; and among those who have been most enterprising in making the change is the Duchess of Fitz-James, one of the largest vineyard proprietors in France, and who early recognized the fact that the march of the inexorable *Phylloxera* could not be stayed. The remarkable papers written by her on the subject, have been read with much interest not only by her own countrymen, but by wine-growers everywhere. Since then, both Europe and California will have to make a new start in the race, and will use the same vine stocks as we now cultivate in the Atlantic States, what should deter us from entering into competition with them? But in order to prosecute the business extensively (and indeed for the now great and growing trucking industry),

we need European laborers. Could we hope to attract immigration of that kind, when, to other existing obstacles, is added a repulsive anti-liquor law? Look at Kansas after a year's trial of prohibition. "The law has not only cut off immigration, but has driven capital out of the State." The Germans are not accustomed to this sort of persecution. Low wages, high taxes and compulsory military service are the ills from which they fly; but they will not be satisfied to live where they cannot enjoy their wine or beer *ad libitum*."

The Grange.

National Lecturer's Communication.

SUBJECTS FOR SUBORDINATE GRANGES FOR AUGUST.

Question—Are railroad corporations subject to legislative control?

Suggestion—Railroads have rights that must be respected, and they should be protected in them. They are an important factor in the commerce of the country; a useful appendage to agricultural prosperity; properly managed, an advantage to the whole country. Their relations with other interests should be of the most amicable character. When these corporations assume authority not justified, they, in a measure, destroy the right of respect. When they deny that agriculture, which furnishes 85 per cent. of their trade, is not of as much importance to them as they are to agriculture, they ignore the element that supports them. When they become arbitrary in their management, and oppressive in their demands, then they lose their usefulness, and ignore the objects for which they were created. Railroad corporations have received in subsidies—local and National—over 200,000,000 acres of public land, and over \$800,000,000 in money and its equivalent in aid of their construction. Corporate owners claim now that it is all their private property, and as such it could not be controlled by legislation. A man invests his money in a grist mill; it is his private property; but when he turns it into public use, the public, by legislative laws, controls the amount of toll the owner may take. So it is with ferries; the boat owned by an individual is private property, but its use and charges are controlled by law. Private property turned into public use, has always been controlled by legislation. And why should not railroads also be so controlled? Let this question be well considered, so as to be thoroughly understood, then we can act wisely in the premises.

Home Department.

Fitting Girls for Housekeepers.

As girls pass into their teens some most sensible mothers give each daughter the full care of the housekeeping for a week at a time, of course guided by their mother's supervision and judgment as to the marketing and expenditure. This is an excellent arrangement, and one of the most important items in their education. There is no greater mistake than feeling that domestic labor when necessary, or the knowledge of it in all positions, must be incompatible with the highest degree of mental culture or refinement. No woman stands so high in position or elegant accomplishments as those who honor themselves and their husbands by a thorough knowledge and oversight of all domestic duties.

No one can hope to hire those who will bring the best taste, the nicest attention to order, neatness and economy in little things into the kitchen, together with a correct knowledge of preparing the simplest meal in a beautiful and attractive manner; and yet all these united have a wonderful power toward making homelife happy and prosperous.

And the absence of these charms, careless housekeeping, an untidy and unattractive home and poor cooking have driven many a husband to seek comfort and happiness elsewhere. Those things which constitute the true charm of a home can not be bought or secured by the labor of hirelings. It is only the mistress of the house, the wife and mother, through her love and union of interest with her husband and children, who, guided by her affection, will labor to bring that charm about her household which springs from systematic labor, scrupulous neatness and economy, a finely appointed table with food daintily prepared and served with exquisite taste. No lady of the highest talent or accomplishments need feel that she demeans herself by giving her most earnest attention to the beauty and comfort of her home, and the most careful ordering of everything connected with the kitchen department. Low down as foolish ideas of gentility have been accustomed to place that department, it has much more to do with the comfort, or discomfort, the peace and happiness, or the discord and evil temper of the whole family than can be gained from elegant or fashionable parties, and all that etiquette demands in fashionable life. No girl, whether from the lowest or the highest position, is fit to become a wife, a mistress of the home, who has not been carefully educated in all the accomplishments and details of the kitchen.—*Christian at Work.*

Curtains.

There is no one thing that adds so much to the furnishing of a room as curtains. With a good carpet, nice walls, and tasty curtains, though you may have little furniture in your room, it will look quite elegant. There is no greater mistake made by people furnishing than putting all their money into a parlor set, and leaving only enough to buy dark shades for their windows. Where a house is without shutters, dark shades seem a necessity; but uglier things could not have been thought of than the present fashionable shades—dark grey and brown. They make the house gloomy within, and look, outside, as if no one lived in the house.

For shades, there is nothing prettier than white, and nothing wears much better. I have some that have been in use five years, and do not look so very bad yet. The dust slips off of Holland very easily, and if the large, brass rings are attached to pull them down with, they can be kept free from finger marks. But inside the shades some drapery is necessary to give a graceful appearance to the windows. These can be of Swiss, scrim, or Canton flannel as one fancies. If the windows are a north look-out, Swiss could be used very well; these are pretty made to part in the center and edged with antique or coarse torchon lace, and at the top set in large box-plaits and fastened to rings slipped on a pole. It is not necessary to purchase the heavy, expensive poles and rings at the stores, if you choose to manufacture your own. Have a pole turned at the carpenter's a little longer than the width of the window; into the end fasten a knob, which can be bought at a hardware store, together with martingale rings of iron, which can be covered with crocheting in brown zephyr. Sew these at equal distances along your curtains, and hang them on two large hooks, which can be purchased at the hardware store. The curtains should only reach the floor; loop them back a little below the middle of the window with ribbon, and not at the window-sill, as formerly.

For a door, a pretty curtain is made on tarlatan, very full, gathered on a string at the top and bottom; part it in the middle, and tie back to each side with a ribbon, so that the opening forms a diamond. Inside of this have a red or white shade to draw down for privacy.

A very pretty way to fix a window looking out upon an unpleasant scene, is to dis-

solve Epsom salts in beer until it is the consistency of cream, and put it upon the glass with a sponge. It will form the most beautiful shapes—equal to Jack Frost's paintings. This arrangement keeps out ugly sights, but does not keep out the light.

If the curtains are made of Canton flannel, the trimming should be broad bands of another contrasting color, put a foot from the top, directly across the curtain, and on a line with the window-sill place another band. Nine inches, at least, in width should the bands be; line the curtains with thin cambric, and trim on the edges with worsted fringe, which comes in beautiful shades from twenty to fifty cents a yard. If you would like them more elaborate, there are beautiful strips of wool canvas, about six inches wide, to be had in all colors, which can be embroidered in any of the pretty stitches now used, and used as bands, instead of another shade of Canton flannel. These strips come for afghans, but can be used for a number of articles where stripes are employed. They are in nearly all colors, and are fifty cents a yard.

Very heavy, grey linen is also used for curtains; along the edge the pattern of the linen is outlined in worsted or crewel. With the great abundance of material it is very easy in these days to make home beautiful, if one has taste; and one cannot do that with plenty of money unless they have taste. The great trouble with many homes is, there is too much mixture in them. To have everything, one must have a large house; and when people learn to furnish houses according to the house, we shall see more pretty homes. Furnish cottages in cottage furniture, and leave the massive style for larger houses.—*Housekeeper.*

AGRICULTURE IN THE SOUTH.

Its Needs and Opportunities.

By TH. POLLARD,
Ex-Commissioner of Agriculture of Virginia.

We have one, or two things to say on the use of fertilizers before dismissing the subject. Our farmers should try different fertilizers to see what their soils need. Try one rich in ammonia, another in which phosphoric acid, and another in which potash predominates, and see which has the best effect; or what is probably better, try ammonia in some form, phosphoric acid and potash in some of their forms each by itself. On this subject, Prof. Atwater (in the *American Agriculturist*) very candidly says—"In fact in the very defective condition of our knowledge of these subjects, the surest and best way to learn what are the needs of a given soil is by actual experiment with different fertilizers, and crops, and modes of treatment." The following is found on the title page of Prof. Atwater's Report, (from Albrecht Thayer, Principles of Rational Agriculture). "These experiments it is true are not easy; still they are within the power of every thinking husbandman. He who accomplishes but one, of however limited application, and takes care to report it faithfully, advances the science, and consequently, the practice, and acquires thereby a right to the gratitude of his fellows, and of those who come after. To make many such is beyond the power of most individuals, and cannot therefore be expected. The first care of all societies formed for the improvement of our science should be to prepare the forms of such experiments, and to distribute the execution of these among the members." When on the subject of "Green manuring," we omitted something we designed to say. Some year or so ago, I received the following letter from Col. J. Marshall McCue, then of Nelson, now of Augusta County, Virginia.

DR. THOMAS POLLARD:

Dear Sir,—For years my observation of the growth of these two crops together, not

alone in the Valley, but in Highland, Pendleton, Bath, &c., has taught me their very great importance, but of the unsurpassed value in the light of pasture, that I have frequently intended to present my views on the subject to the public.

The most interesting results, as detailed in the experiment I will give you, will, I am sure, convince the most skeptical, and because of its adaptation to the large stretch of country contiguous to the Blue Ridge, from the Potomac to Atlanta, where pasture is the desideratum, will make it more impressive.

I spent the night of the 20th ult., at Lodebar, in this county (Nelson), with George R. Hight, Esq., a native of the county, near the Augusta border, at Midway. He is an intelligent gentleman, for some years a magistrate in the Montebello neighborhood, that being his post. He gave me the facts herein set forth. He enclosed twelve acres of a piece of level-lying land that had been cleared for forty years, and lying out in common for twenty, and grazed close each year by all kinds of stock. He plowed it with a light barshare, about four inches deep, and on the 9th of July, 1880, sowed upon it, as turned up, $7\frac{1}{2}$ bushels of buckwheat and $7\frac{1}{2}$ bushels of Poland rye, and harrowed it in. On the first of October he cut the buckwheat, and as soon as dry enough, selected a spot with a tight sod, and flailed it out, and cleared up 180 bushels, worth 50 cents per bushel. So luxuriantly had this rye grown that in cutting the buckwheat much of the top blades were cut. He at once turned three head of horses, a cow and several yearlings on the rye, then looking like a fall meadow in a favorable season, and except when the ground was covered by snow, they grazed it until the 1st day of May. He cut and thrashed 207 bus. of rye, of such quality that in 35 measured bus. the gain was one and a half bushels in weight. He just sold it in Staunton, a few days before, to Todd & Co., at \$1.10 per bushel, who pronounced it A No. 1 in quality. The pasturing caused it to stool, so that from one grain he counted 107 stalks, and he thinks it averaged at least 45 stalks to the single grain. The joint crops of 388 bushels brought him \$327.50, or \$40 per acre, and the saving in grain from the abundant pasture, he is satisfied far more than paid all the expenses of plowing, harvesting, thrashing, marketing, &c. Then there is a fact I should not pass by, that because of the cool, shady, moist character of buckwheat when growing, clover never fails to stand when sowed with it. I should have mentioned that this land lies on Crab Tree Falls, a branch of the South Fork of Tye river.

Yours respectfully,

J. MARSHALL McCUE.

In a ride up Rockfish and on the Lovingston, I am satisfied the apple crop will bring far more money into all this region than wheat and tobacco combined. The widow of Dr. Hawes Coleman sold 300 barrels of pippins at \$4, and had 700 of other varieties.

J. H. McC.

In THE AMERICAN FARMER of November, 1881, is an essay read before the Woodlawn Agricultural Society, Fairfax, Virginia, by Dr. McKim, President of the Potomac Fruit Growers' Association, in which he takes the ground that rye is the best crop to turn under for green manuring. His plan is to "sow in the fall with, or without fertilizers, as circumstances permit, turn in in the spring, sow buckwheat, turn that in, sow again with clover, and permit the clover to ripen, and the grain and straw will make a handsome return, besides the improvement effected on the land." To this system we should undoubtedly add lime.

PROPER CULTIVATION OF LAND, AS A MEANS OF IMPROVEMENT.—We come now to this branch of our subject, and it is one

that our farmers in Virginia have generally never properly considered. So far from improving their lands by proper tillage, they have in many instances, so plowed their lands as to deteriorate them. Hillsides and gentle eminences have been scratched over, without any reference to depth of soil, and direction of furrows, so that heavy rains have in many instances, swept the super-soil into the branches, and rivers, and lowlands. Hence so many galls and unproductive spots. Depth of soil is essential to fertility and productiveness; and this may be obtained without throwing any subsoil to the surface. If this subsoil is a good one, it will not hurt to bring it to the surface, as we shall presently show. Much discussion has occurred about the advantages of deep and shallow plowing. Where deep plowing fails to improve the land by bringing into play fresh plant food, it is because the subsoil is inferior, and does not contain these elements necessary to the growth of plants. In such soils, if this subsoil is turned up, and brought to the surface, decrease of production will be the result, at least temporarily, for even then the land can be permanently improved by the use of fertilizers, or application of vegetable matter in some form. *Depth and friability* of soil are very important things to arrive at in the improvement of land, and increase of production. We remember in the first years of our late war, visiting an old Englishman who resided several miles below Richmond. He was a very intelligent man, and had made himself known by the writing of a prize essay on grapes for the Virginia Agricultural Society—he had once been in competent circumstances, but on coming to the country put his money in the old United States Bank, and lost it all. I found him, with a colored hand, assiduously digging up the ground around his vines and trees, and throwing it up around the bodies. He said he did this to procure friability of soil; that he could not afford to subsoil, and that if he had to do without friability of land, or manure, he would do without the latter. I have been very much struck with the effect of a deep, friable soil in fields where the batteries around Richmond city have been thrown down. Though the super soil is all buried and invisible, the red clay which formed the embankments yields a very decided increase in the production of clover, wheat and corn. The supply pipes to the new Reservoir of Richmond pass through a field jointly owned by a friend, and myself—when the pipes were laid a large opening was made 10 feet deep to receive them. The dirt, red clay, lay out for several months during the winter, was then filled in, and seeded to oats. The growth of oats over the pipes was nearly twice as great as elsewhere in the fields, and during the summer very luxuriant weeds came up here, and in the fall in riding through the field I found one, ("Lamb's-quarter,") which reached to the top of my head as I sat on horseback. All this was the result of deep, friable soil, readily admitting heat, air, light, and moisture to the growing vegetation, and is a strong argument in favor of deep plowing on good soils. On this land referred to, the plowing could not be too deep. On the Westover farm, Major Drewry, one of the most successful farmers in the State, tells me he breaks his land with a four horse plow, 12 to 14 inches. He scarcely ever fails to make splendid crops of wheat, corn, and clover. In the October number, 1881, of the *Southern Planter*, Mr. W. A. Parsons gives the result of deep plowing on a farm he purchased near the Upper James River, at \$5 per acre (without dwelling or fences) and was called a "poor worn-out farm," on which his neighbors told him he would starve. It is two miles back from the river, "of nice gray, and chocolate soil with good red clay subsoil." He first cleaned, and grubbed up ten acres, grown up in bushes, and put it in corn, a

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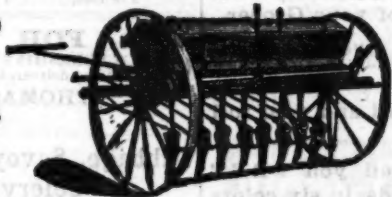
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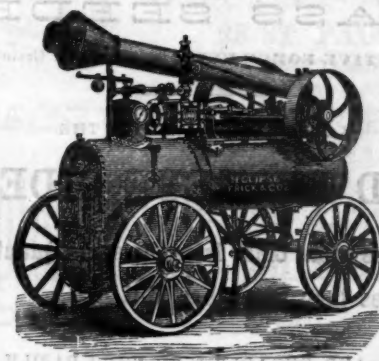
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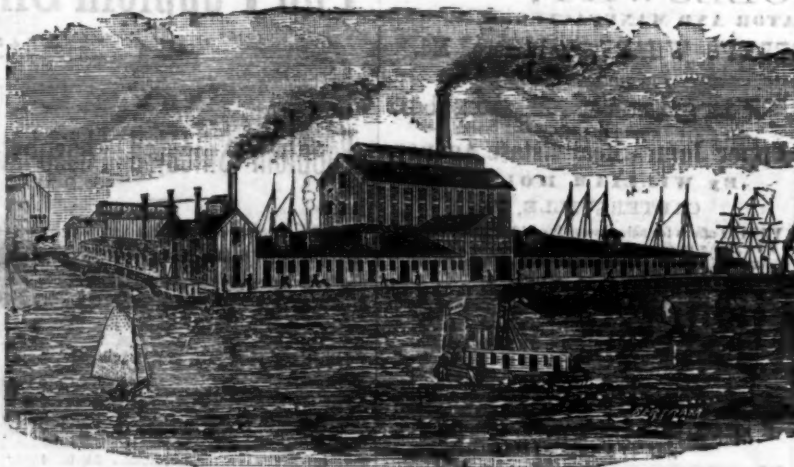
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